

WHAT IS CLAIMED IS:

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1. A method for calibrating a print control parameter to avoid a banding artifact on a printed media sheet, comprising the steps of:  
printing on a media sheet a test plot having a plurality of areas, each area being a common image printed using a different value of the print control parameter;  
receiving an input indicating which one area of the plurality of areas exhibits either the absence of or the least amount of the banding artifact as perceived by a person viewing the media; and  
setting the print control parameter to the value corresponding to the indicated one area.
  2. The method of claim 1, wherein the print control parameter is linefeed error adjustment.
  3. The method of claim 1, wherein the print control parameter is swath height error adjustment.
  4. The method of claim 1, wherein the set value is a first value, and further comprising the steps of:  
identifying a selected media type for a print job;  
determining a second value for the print control parameter for use in printing onto the identified media type; and  
printing the print job onto a media sheet using the second value for the print control parameter.
  5. The method of claim 4, wherein the step of determining comprises deriving the second value as a function of the first value and the identified media type.
  6. The method of claim 4, further comprising the step of prestoring a set of alternate values for the print control parameter, wherein each one of the set of alternate values corresponds to a different media type; and wherein the step of determining comprises looking up one of the set of alternate values based upon the identified media type.

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7. A method for determining a normal value for a linefeed error adjustment parameter, comprising the steps of:

5 printing on a media a test plot having a plurality of areas, each area being a common image printed using a different value for the linefeed error adjustment parameter;

receiving an input indicating which one area of the plurality of areas has a highest print quality as perceived by a person viewing the media; and

10 setting the normal value of the linefeed error adjustment parameter to the value corresponding to the indicated one area.

8. The method of claim 7, in which the linefeed error parameter value is automatically varied with a life cycle schedule of roller wear.

15 9. The method of claim 7, further comprising the steps of:

identifying a selected media type for a print job;

16 deriving a temporary linefeed error parameter value for use in printing onto the identified media type; and

20 printing the print job onto a media sheet using the temporary linefeed error parameter.

10. The method of claim 9, wherein the step of deriving comprises deriving the temporary linefeed error adjustment parameter as a function of the normal value and the identified media type.

25 11. The method of claim 7, further comprising the steps of:

identifying a selected media thickness for a print job;

30 deriving a temporary linefeed error parameter value for use in printing onto the identified media type, wherein the temporary linefeed error adjustment parameter is derived as a function of the normal value and the identified media thickness; and

printing the print job onto a media sheet using the temporary linefeed error parameter.

12. The method of claim 7, further comprising the steps of:  
 identifying a selected media finish for a print job;  
 deriving a temporary linefeed error parameter value for use in printing  
 onto the identified media type, wherein the temporary linefeed error adjustment  
 5 parameter is derived as a function of the normal value and the identified media finish;  
 and  
 printing the print job onto a media sheet using the temporary linefeed  
 error parameter.

13. The method of claim 7, in which the step of receiving comprises  
 receiving an input indicating which one area of the plurality of areas either lacks or has  
 least banding.

14. The method of claim 7, in which each area of the plurality of  
 15 areas comprises a gray scale image, wherein the step of printing using a different value  
 for the linefeed error adjustment parameter at each area results in a different degree of  
 banding for each area, wherein light banding indicates a linefeed error adjustment  
 parameter which causes over-feeding and dark banding indicates a linefeed error  
 adjustment parameter which causes under-feeding, and in which the step of receiving  
 20 comprises receiving an input indicating which one area of the plurality of areas either  
 lacks or has least banding in the corresponding gray scale image.

15. An apparatus which prints a test plot onto a media sheet to  
 calibrate a normal value for a linefeed error adjustment parameter, the apparatus  
 25 comprising:

a drive motor;  
 a drive shaft driven by the drive motor;  
 a roller coupled to the drive shaft which moves with the drive shaft;  
 an encoder which generates a first signal corresponding to position of  
 30 the drive shaft;  
 a print controller which receives the first signal and in response  
 generates a second signal fed to the drive motor for controlling the drive motor;  
 memory which stores a test pattern and a range of adjustments for the  
 linefeed error adjustment parameter;

a print source which during calibration of the linefeed error adjustment parameter prints the test plot, the test plot having a plurality of areas, each area including the stored test pattern printed with a different value for the linefeed error adjustment parameter, wherein the different values are based upon the stored range of adjustments of the linefeed error adjustment parameter;

a user interface at which a user generates an input indicating one area of the plurality of areas; and

processing means which receives the input and in response sets the normal value for the linefeed error adjustment parameter to be the value corresponding to the indicated one area of the plurality of areas of the test plot.

16. The apparatus of claim 15, wherein the drive motor, drive shaft, roller, encoder and print controller are part of a printer, the apparatus further comprising:

means for tracking the use of the printer, and wherein the processing means varies the normal value of the linefeed error parameter value as a function of the tracked usage of the printer.

17. The apparatus of claim 16, wherein the tracking means tracks life of the roller and the processing means varies the normal value of the linefeed error parameter value as a function of the life of the roller.

18. The apparatus of claim 15, wherein the drive motor, drive shaft, roller, encoder and print controller are part of a printer, and wherein the apparatus further comprises a host computer, the host computer sending to the printer a command indicating media type for an ensuing print job, the apparatus further comprising:

means for deriving a temporary linefeed error parameter value for use in printing said ensuing print job which is derived as a function of the normal value of the linefeed error adjustment parameter and the indicated media type.

19. The printer of claim 15, wherein the memory stores adjustment factors corresponding to different media types and wherein the processing means adjusts the linefeed error adjustment parameter for a given print job based upon the media type for said print job.

8 <sup>3</sup> 20. The printer of claim 15, wherein the memory stores adjustment factors corresponding to different media stocks and wherein the processing means adjusts the linefeed error adjustment parameter for a given print job based upon the media stock for said print job.

9 <sup>3</sup> 21. The printer of claim 15, wherein the memory stores adjustment factors corresponding to different media finishes and wherein the processing means adjusts the linefeed error adjustment parameter for a given print job based upon the media finish for said print job.

10 <sup>3</sup> 22. The apparatus of claim 15, wherein the apparatus further comprises a sensor for detecting media type; and means for determining a temporary linefeed error parameter value for use in printing said ensuing print job which is derived as a function of the normal value of the linefeed error adjustment parameter and a detected media type.

11 <sup>3</sup> 23. The apparatus of claim 15, further comprising:  
means for identifying a media type for a print job;  
means for determining a second value for the linefeed error adjustment parameter for use in printing onto the identified media type.

11 <sup>10</sup> 24. The apparatus of claim 23, wherein the memory stores the normal value and a set of alternate values for the normal value for use while printing onto an alternate media type, and wherein the determining means selects the second value from the set of alternate values.